FOODS AND BEVERAGES
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flour + germ
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COMPLETE SPECIFICATION.

Improvements in the Manufacture of Flour, and in the Making of Bread, Biscuits, and the like therefrom.

We, WILLIAM ERNEST ROSEWARNE, of Hillside, Hayle, in the County of Cornwall, Merchant, and WILLIAM HENRY INCE, of Penpole Avenue, Hayle, in the County of Cornwall, Engineer, do hereby declare the nature of our invention, and in what manner the same is to be performed to be particularly described in and by the following statement:—

The object of our invention is to produce a flour with the admixture of wheat germ. After the germ is prepared by our special process, in the manner hereinafter described, it is mixed with the flour in suitable proportions, and can be made into bread, biscuits or other articles of food by the ordinary process of fermentation, or if preferred by an unfermented process, by the addition of the necessary effervescent ingredients.

It is well known that the bulk of the world's supply of merchantable flour is manufactured by the roller process of milling, and in consequence of this mode of reduction the whole of the germ and the bulk of the phosphates contained in the wheat berry are extracted from the flour. These exceedingly useful substances which are useful or necessary for building up the human frame are not extracted intentionally, but as an unavoidable consequence in the peculiar action of the roller process of milling.

The aim we have before us is to put back into the flour the germ and phosphates in as near the proportions as possible to that which nature has supplied in the perfect growth of the wheat berry.

It is well known that there is a large percentage of phosphate in the wheat germ, and in the bran or outer covering of the wheat berry, and phosphate is nerve and brain food, so that we need it in bread at all times.

The product of this invention differs from the so-called wholemeal, inasmuch as that wholemeal contains the whole of the bran or outer covering. It is an established fact among medical men that the consumption of bran in any form entails untold mischief upon the coats of the stomach, and the folds of the mucous membrane. Bran is in fact practically indigestible by the human stomach. Our invention supplies to the flour the important mineral ingredients without the necessity of throwing coarse bran into the flour as above described.

In carrying out our invention we take the germ of wheat which has been separated in the ordinary way and subject it to a dry heat in any suitable apparatus of from 200° to 250° Fah.; it is afterwards cooled and ground into fine meal; at the same time a small quantity of oatmeal and hypophosphates of lime and soda are ground with the germ so as to become thoroughly mixed therewith: subsequently a suitable proportion of the mixed ground germ meal is mixed with the flour for general use.

The mixture preferably consists of about 100 lbs. flour, 20 lbs. germ meal, 4 lbs. oatmeal, 1 oz. hypophosphate of lime and 1 oz. hypophosphate of soda, the whole thoroughly mixed, but we do not confine ourselves to these proportions, which may be varied to suit various requirements.

To bake the prepared germ flour into bread by a fermented process we mix up the flour with warm water at say 150° Fah., allow the mixture to cool and then add the necessary yeast in the usual way.

[*Price* 8*d.*]

To bake the prepared germ flour into bread and biscuits by an unfermented process to each 100 lbs. of the prepared flour we should add in the capacity of a baking powder ½ lb. cream of tartar, ½ lb. bicarbonate soda, ½ lb. tartaric acid, and pass the whole through a sifting machine; it is then ready for use, by simply mixing up with cold water to the proper consistency and baked at once.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

1. The method of treating the germ of wheat previous to its mixture with flour or meal, with which it is subsequently used in the preparation of bread, biscuits or other articles of food, so as to render such articles easy of digestion as herein described.

2. The process of heating and grinding wheat germ into meal and the combination of same with other substances in the preparation of flour for making bread, biscuits or other articles of food substantially as herein described.

3. The combination with the germ flour prepared in the manner specified of baking powder consisting of tartaric acid, bicarbonate of soda and cream of tartar, for the purpose of enabling such flour to be made into bread, biscuits or other articles of food by an unfermented baking process, all substantially as herein described.

Dated this 6th day of May 1895.

ALLISON BROS.,
Agents for the Applicants.

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